

IN THE CLAIMS

Please amend the claims as follows. The listing of claims below will replace all prior versions and listings of claims in the instant application.

Claims 1-34: Canceled

35. (previously presented) An apparatus for taking up a medium to be analyzed, comprising:

a pipette for taking up the medium to be analyzed, said pipette having a diaphragm containing at least one pore of a given radius; and

a pump, said pump producing a negative pressure in said pipette and said pump being configured such that said produced negative pressure does not go below a critical pressure at which the surface tension of a liquid present at said at least one pore of said diaphragm would be overcome.

36. (previously presented) The apparatus according to claim 35, further comprising a pump controller controlling said pump and said negative pressure produced by said pump.

37. (previously presented) The apparatus according to claim 35, wherein the apparatus is configured such that said critical pressure within said pipette is determined by:

$$P=2\cdot S/r$$

where S denotes said surface tension of said liquid present at said at least one pore, and r denotes said given radius of said at least one pore.

38. (previously presented) The apparatus according to claim 35, wherein the apparatus is configured so that the medium to be analyzed is said liquid.

39. (previously presented) The apparatus according to claim 35, wherein the apparatus is configured so that the medium to be analyzed is a gas.

40. (previously presented) The apparatus according to claim 35, wherein said diaphragm is hydrophilic or hydrophobic.

41. (withdrawn) A method for analyzing a medium the method comprises:
providing the medium to be analyzed;
providing a pipette for taking up the medium to be analyzed, said pipette having a diaphragm containing at least one pore of a given radius;
determining a critical pressure at which the surface tension of a liquid present at said at least one pore of said diaphragm would be overcome; and
producing a negative pressure in said pipette, wherein said produced negative pressure does not go below the critical pressure.

42. (withdrawn) The method according to claim 41, the method further comprises controlling said negative pressure produced by a pump by using a pump controller.

43. (withdrawn) The method according to claim 41, wherein determining said critical pressure comprises determining said critical pressure using:

$$P=2\cdot S/r$$

where S denotes said surface tension of said liquid present in said at least one pore, and r denotes said given radius of said at least one pore.

44. (withdrawn) The method according to claim 41, wherein providing the medium to be analyzed comprises providing said liquid.

45. (withdrawn) The method according to claim 41, wherein providing the medium to be analyzed comprises providing a gas.

46. (withdrawn) The method according to claim 41, which further comprises configuring said diaphragm to be hydrophilic or hydrophobic.

47. (withdrawn) An apparatus for taking up a medium to be analyzed, comprising:

a pipette for taking up the medium to be analysed, said pipette having a diaphragm containing at least one pore of a given radius;

a pump producing a negative pressure in said pipette; and

a control measure controlling said negative pressure produced by said pump so said negative pressure does not go below a critical pressure at which the surface tension of a liquid present at said at least one pore of said diaphragm would be overcome, thereby ensuring that no other medium other than the medium to be analyzed is taken up said pipette.

48. (withdrawn) A method for taking up a medium to be analyzed comprising:

providing a pipette for taking up the medium to be analyzed, said pipette having a diaphragm containing at least one pore of a given radius;

producing a negative pressure in said pipette; and

controlling said negative pressure by using a control measure, wherein said produced negative pressure does not go below a critical pressure at which the surface tension of a liquid present at said at least one pore of said diaphragm would be overcome, thereby ensuring that no other medium other than the medium to be analyzed is taken up said pipette.

49. (new) A method for taking up a medium to be analysed, the method comprising:

providing a pipette for taking up the medium to be analysed, said pipette having a diaphragm containing at least one pore of a given radius;

determining a critical pressure at which the surface tension of a liquid present at said at least one pore of said diaphragm would be overcome; and

producing a negative pressure in said pipette to take up the medium to be analysed, wherein said produced negative pressure does not go below the critical pressure.

50. (new) The method according to claim 49, wherein determining said critical pressure comprises determining said critical pressure using:

$$P=2 \cdot S/r$$

where S denotes said surface tension of said liquid present in said at least one pore, and r denotes said given radius of said at least one pore.